

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A low-pressure mercury vapor discharge lamp comprising a discharge vessel,
the discharge vessel enclosing, in a gastight manner, a discharge space provided with a filling of mercury and a rare gas,
the discharge vessel comprising a luminescent layer and means for maintaining an electric discharge in the discharge space,
a portion of an inner surface of the discharge vessel facing the discharge space being provided with a protective layer adjacent said luminescent layer, characterized in that
the wherein protective layer comprises aluminum oxide or yttrium oxide and further comprises a borate and/or a phosphate of an alkaline earth metal and/or of scandium, yttrium, or a further

~~rare earth metal,~~

~~an inner side of the protective layer facing the discharge space is provided with said luminescent layer, and~~

~~an inner side of said luminescent layer facing the discharge space is provided with an additional protective layer.~~

2. (Currently Amended) ~~A~~ The low-pressure mercury vapor discharge lamp as claimed in claim 1, ~~characterized in that the alkaline earth metal is~~ wherein the protective layer further comprises a phosphate of calcium, and/or strontium, and/or barium.

3. (Currently Amended) ~~A~~ The low-pressure mercury vapor discharge lamp as claimed in claim 1, ~~characterized in that the further rare earth metal is lanthanum, cerium, and/or~~ wherein the protective layer further comprises a borate and/or a phosphate of gadolinium.

4. (Currently Amended) ~~A~~ The low-pressure mercury vapor discharge lamp as claimed in claim 1, ~~characterized in that the~~

wherein the protective layer further comprises aluminum oxide
comprises comprising particles with an effective particle size d_p
not exceeding 3 μm .

5. (Currently Amended) A-The low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that wherein the protective layer further comprises an alkaline earth borate, and in that the wherein a thickness of the protective layer is in a range from 0.1 to 50 μm .

6. (Currently Amended) A-The low-pressure mercury vapor discharge lamp as claimed in claim 5, characterized in that wherein the protective layer comprises SrB_4O_7 .

7. (Currently Amended) A-The low-pressure mercury vapor discharge lamp as claimed in claim 5, characterized in that the wherein a thickness of the protective layer is in a range from 1 to 20 μm .

8. (Currently Amended) AThe low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that wherein the discharge vessel comprises at least one stem, said stem being provided with the protective layer.

9. (Currently Amended) AThe low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the discharge vessel is made from a glass comprising silicon dioxide and sodium oxide, with the glass composition comprising the following essential constituents, given in percentages by weight:

60-80 % SiO₂,

10-20 % Na₂O.

10. (Currently Amended) AThe low-pressure mercury vapor discharge lamp as claimed in claim 9, characterized in that wherein the glass composition comprises the following constituents:

70-75 % SiO₂,

15-18 % Na₂O,

0.25-2 % K₂O by weight.

Claims 11-12 (Canceled)

13. (Currently Amended) A The low-pressure mercury vapor discharge lamp as claimed in claim 11, characterized in that claim 1, wherein the luminescent material comprises a mixture of green-luminescing, terbium-activated cerium-magnesium aluminate, blue-luminescing barium-magnesium aluminate activated by bivalent europium, and red-luminescing yttrium oxide activated by trivalent europium.

14. (Currently Amended) A The low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the wherein the protective layer further comprises aluminum oxide comprises comprising particles with an effective particle size d_p , in the range of $0.1 \leq d_p \leq 0.8 \mu\text{m}$.

15. (New) The low-pressure mercury vapor discharge lamp of claim 1, wherein the protective layer further comprises aluminum

PATENT

Serial No. 10/522,285

Amendment in Reply to Office Action of December 19, 2008

oxide or yttrium oxide and a borate an alkaline earth metal and/or of scandium, yttrium, or a further rare earth metal.

16. (New) The low-pressure mercury vapor discharge lamp of claim 1, wherein the protective layer further comprises a phosphate of yttrium, or a further rare earth metal.

17. (New) The low-pressure mercury vapor discharge lamp of claim 1, wherein an inner side of the protective layer facing the discharge space is provided with said luminescent layer, and an inner side of said luminescent layer facing the discharge space is provided with an additional protective layer.